



Exhibit A. Ghost Image of Aperture Stop Produce by Sunlight (Ghost in Upper Right Corner)

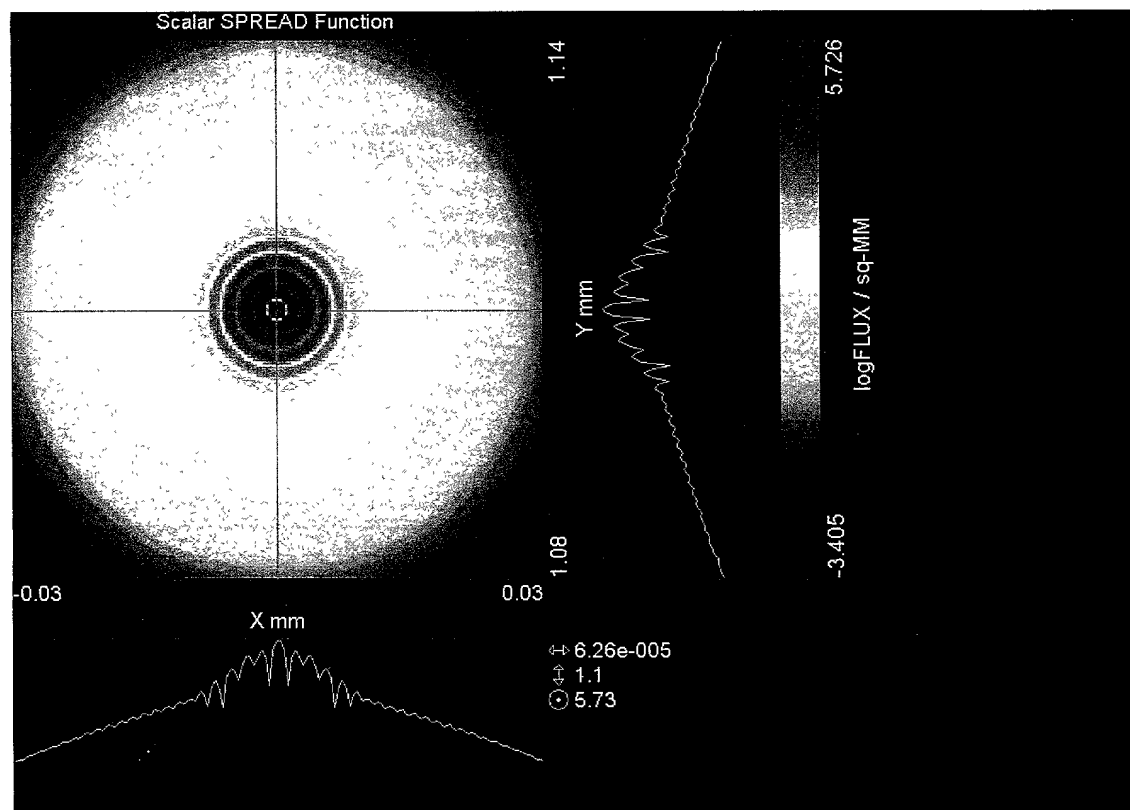
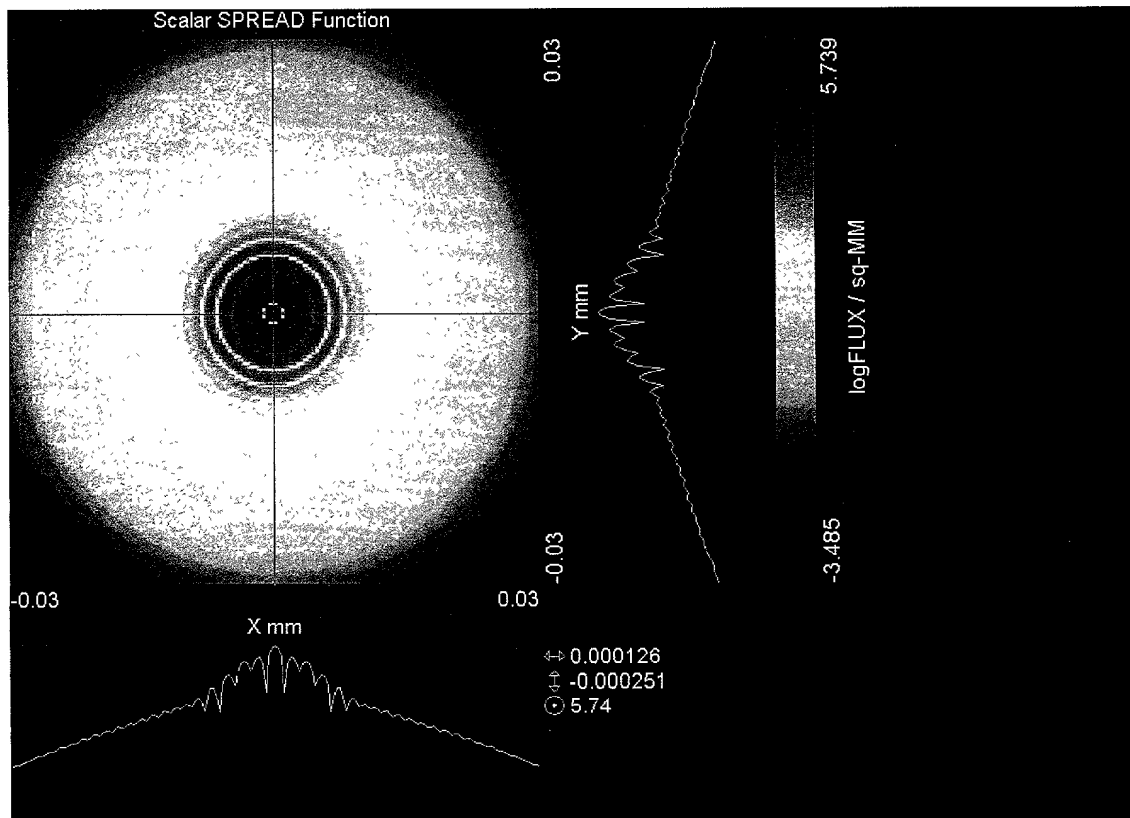


Exhibit B On and Off-axis PSFs

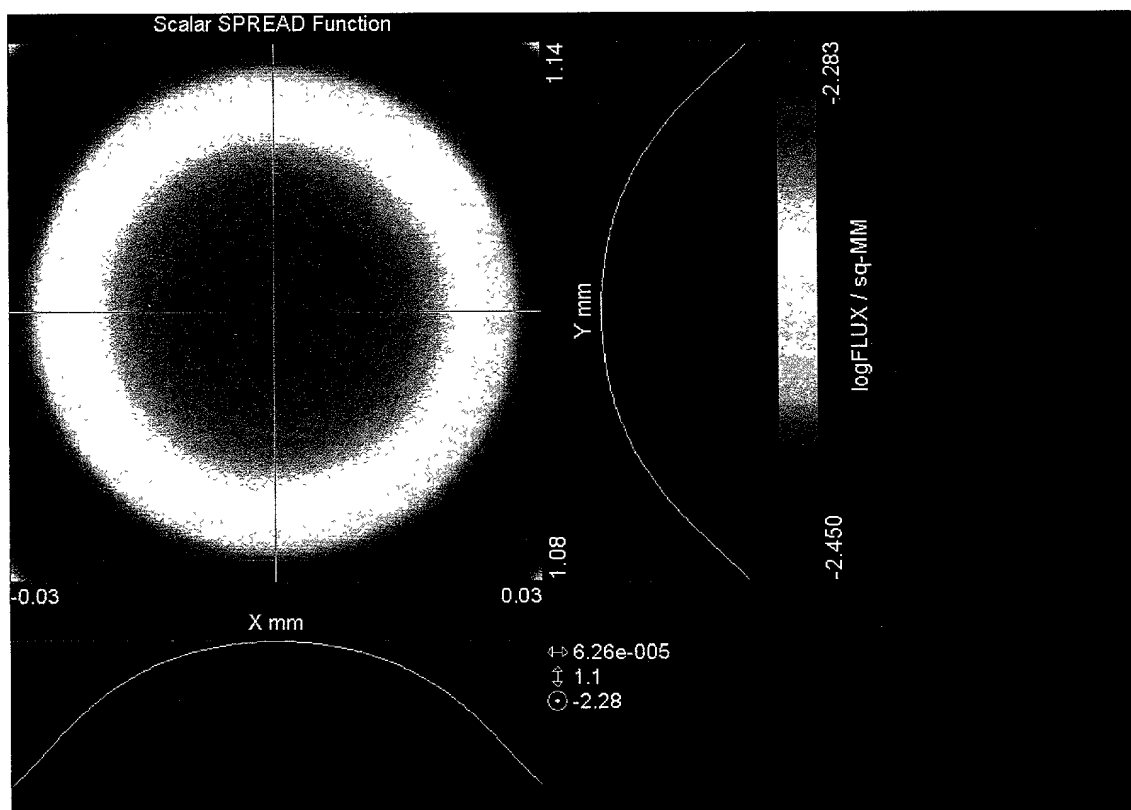
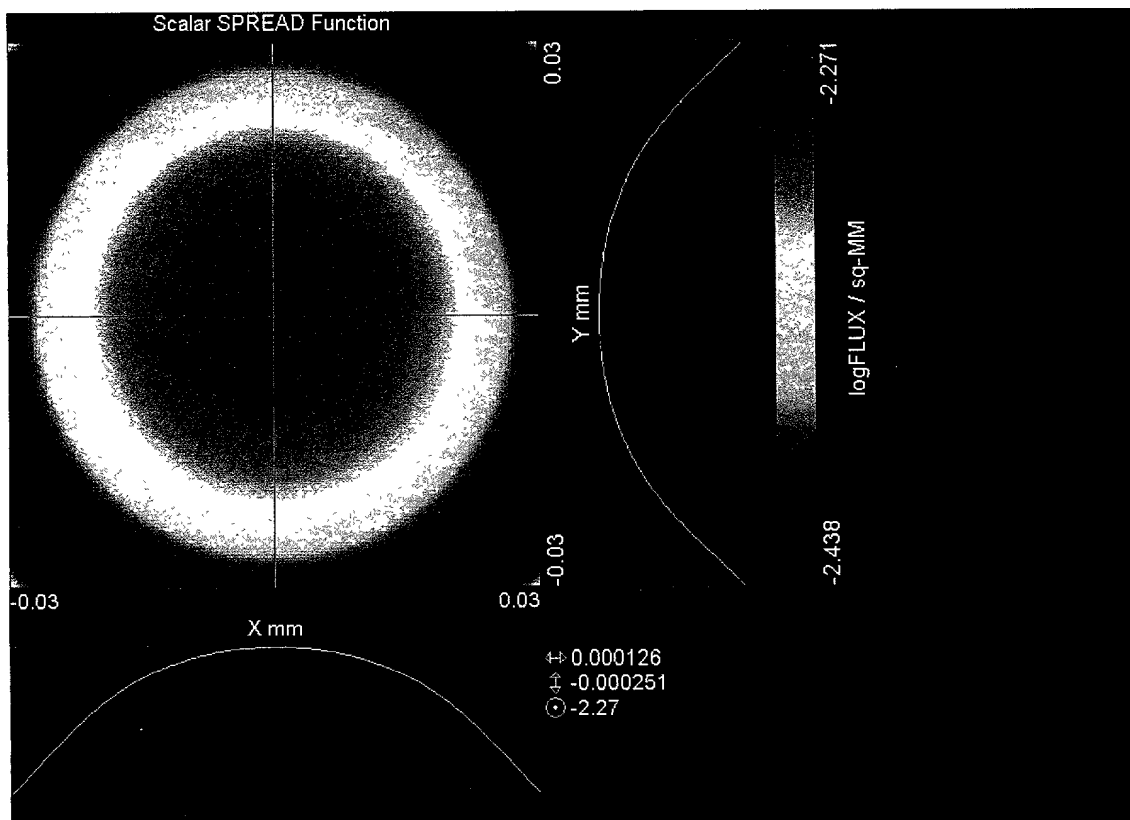


Exhibit C On and Off-axis Ghost Images

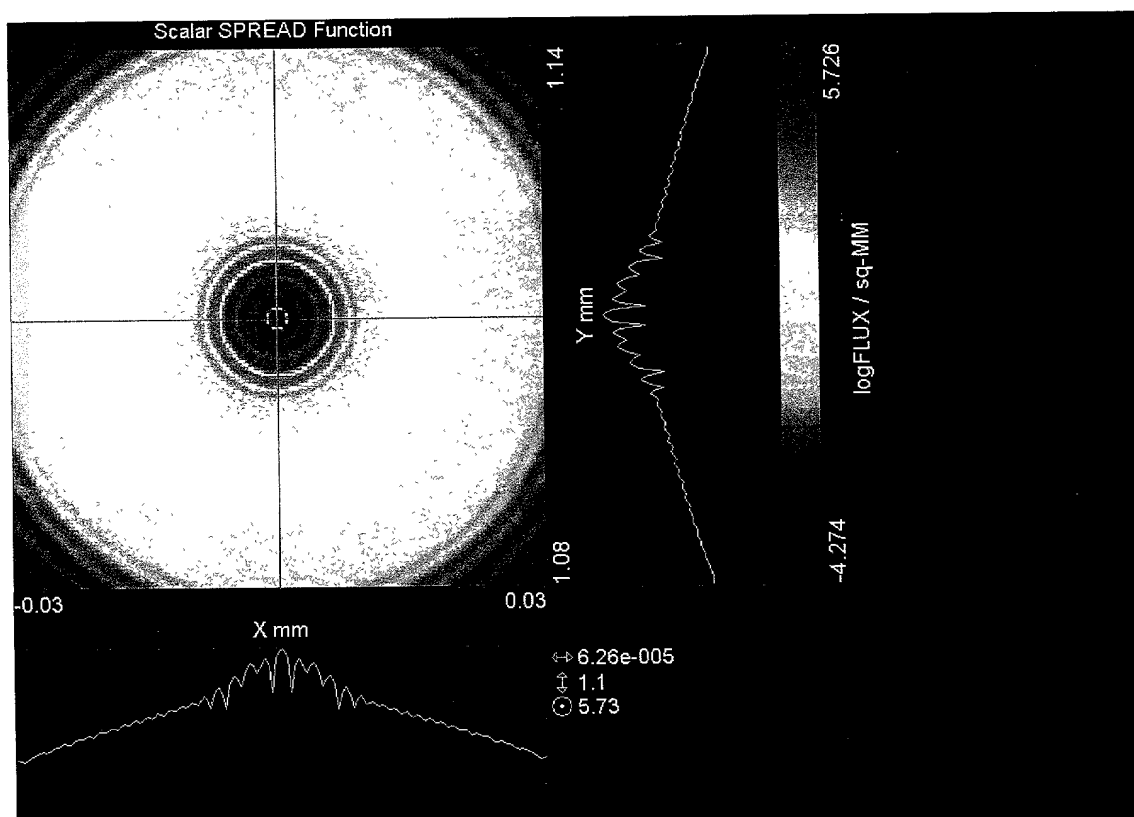


Exhibit D On and Off-axis PSFs with Ghost Contributions

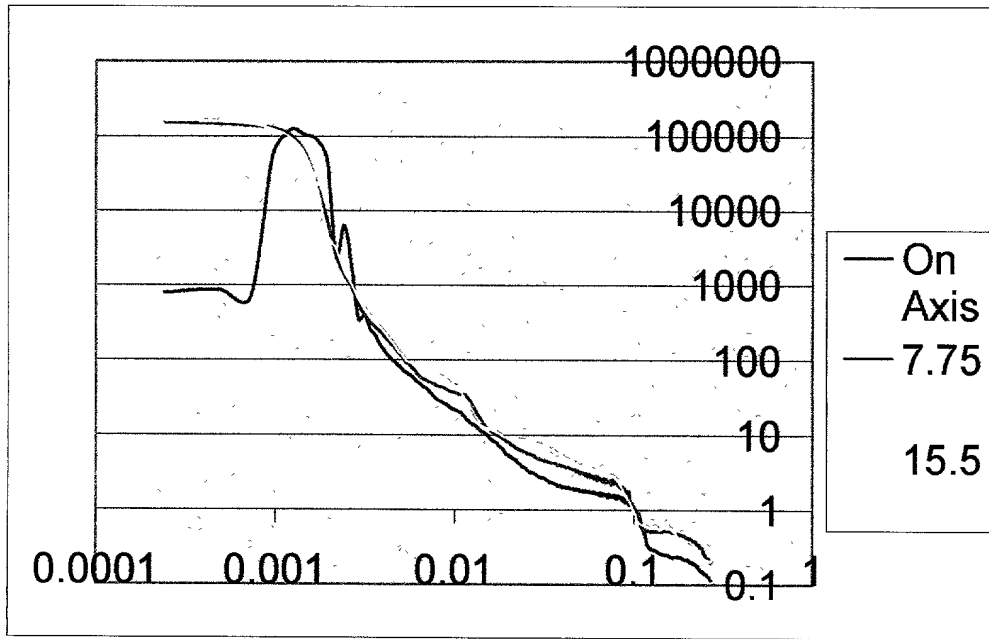


Exhibit E. Measured Data Illustrating the Shift Invariance of Scattered Light and Ghost Images from a Telecentric Optical System (Telecentric in Image Space) of a Digital Camera

TRIPLET SYSTEM TO DEMONSTRATE GHOST IMAGING

51.0665,127.306

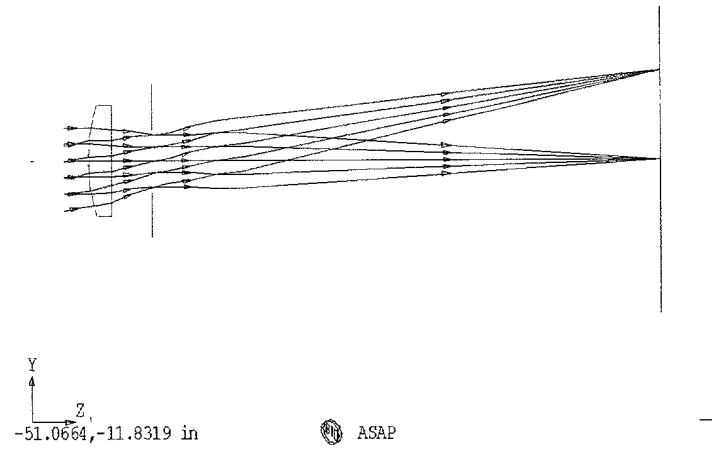


Exhibit F Triplet Lens System with On and Off Axis Point Sources

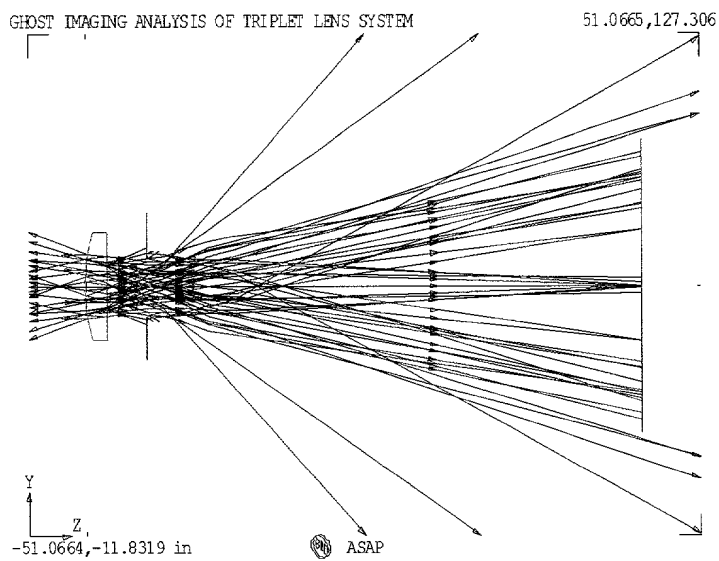


Exhibit G Ghost Reflections through Triplet from On-axis Point Source

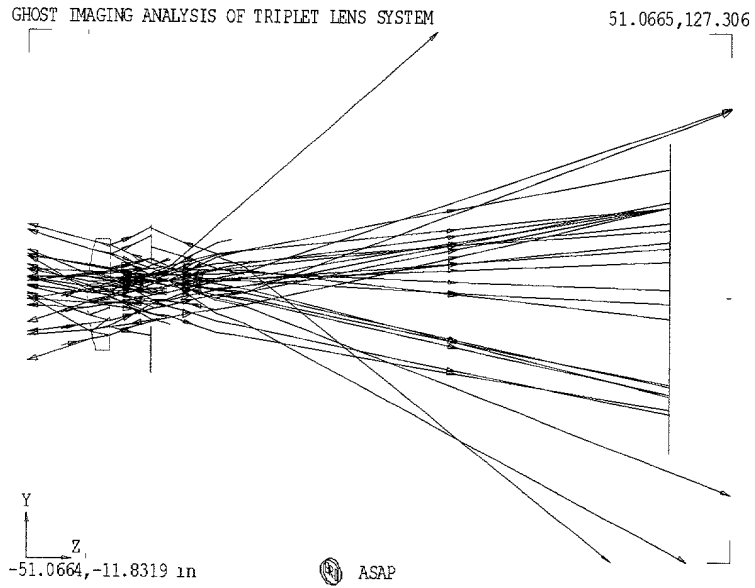


Exhibit H Ghost Reflections through Triplet from Off-axis Point Source

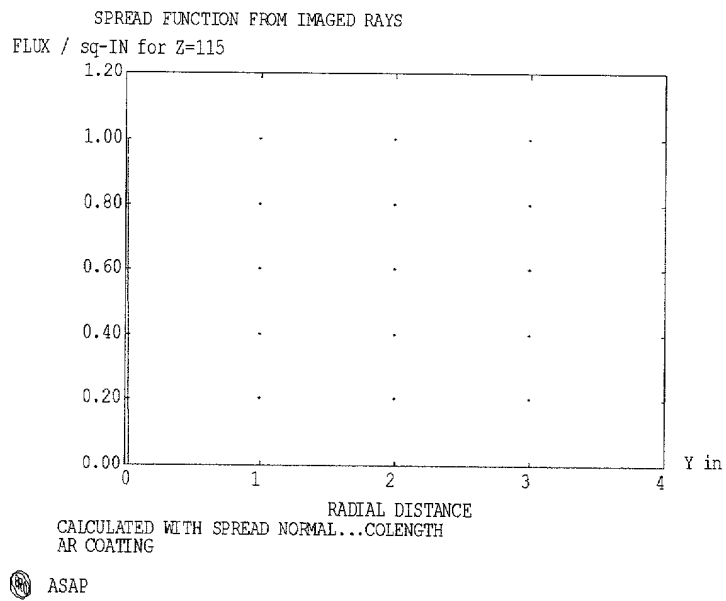


Exhibit I System PSF due to Diffraction and Aberration

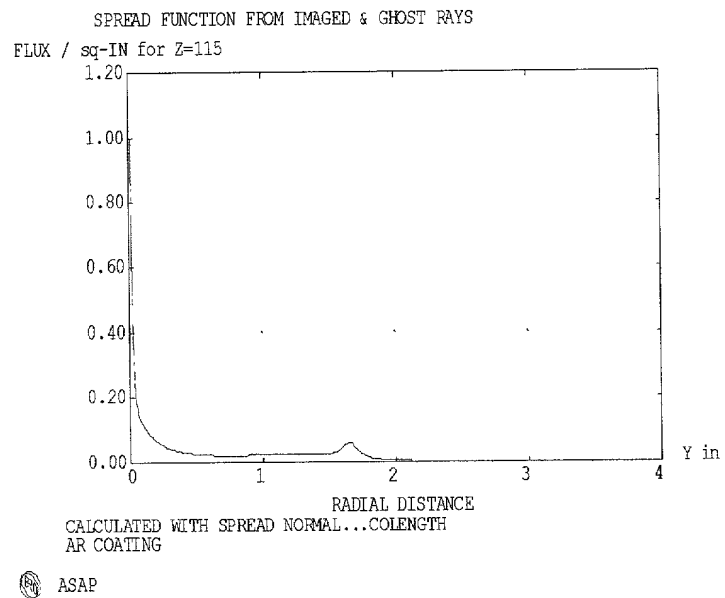


Exhibit J System PSF due to Diffraction, Aberration, and Ghost Images

RAY TRACE FOR PATH 1

51.0665,127.306

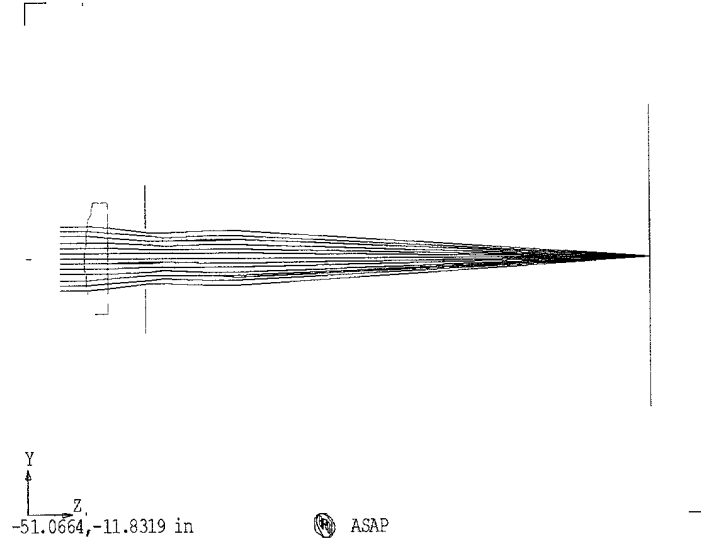


Exhibit K On-Axis Signal Path

RAY TRACE FOR PATH 2

51.0665,127.306

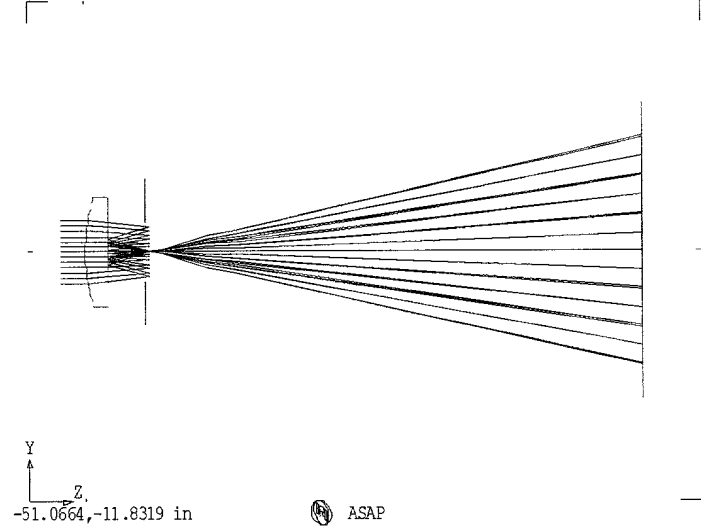


Exhibit L On-Axis Ghost Path of Most Energy

RAY TRACE FOR PATH 1

51.0665,127.306

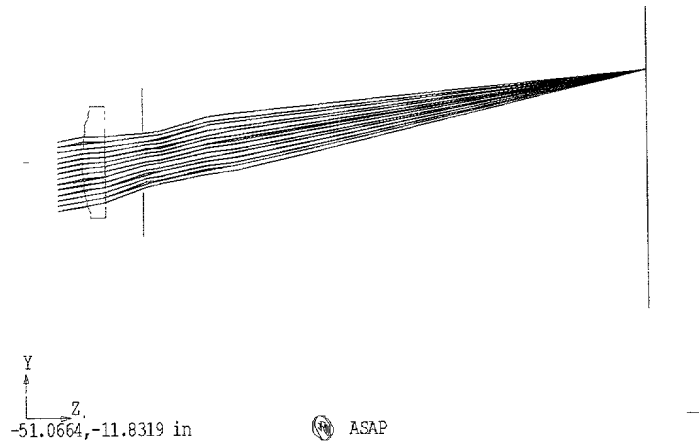


Exhibit M Off-Axis Signal Path

RAY TRACE FOR PATH 3

51.0665,127.306

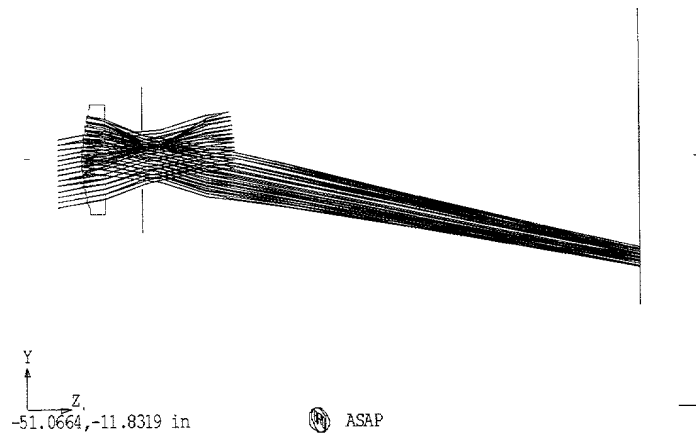


Exhibit N Off-Axis Ghost Path of Most Energy

IDEAL OPTICAL SYSTEM WITH STOP AT LENS

10.125,28.5611

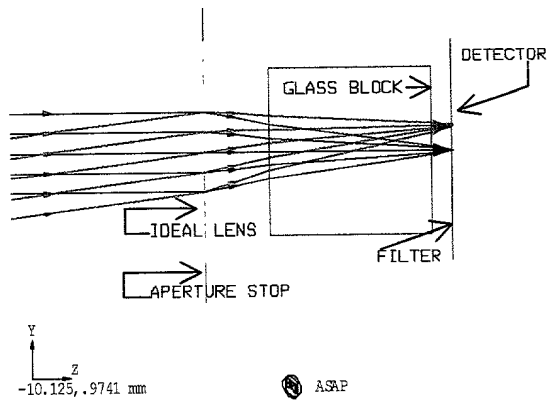


Exhibit O On and Off-axis Point Sources Imaged Through an Ideal Lens with the Stop at the Lens, A glass block, and a Filter

IDEAL OPTICAL SYSTEM WITH STOP AT LENS ILLUSTRATING GHOST IMAGING 10.125,28.7111

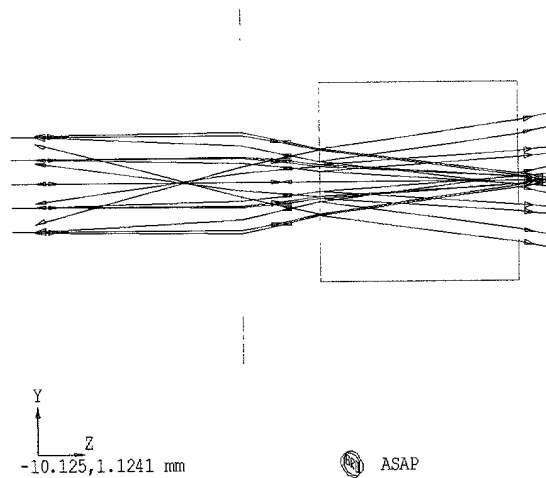


Exhibit P On-axis Ghost Rays

IDEAL OPTICAL SYSTEM WITH STOP AT LENS ILLUSTRATING GHOST IMAGING 10.125,28,7111

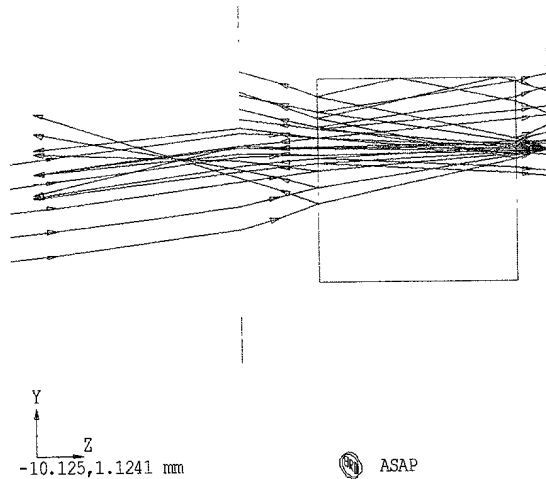


Exhibit Q Off-axis Ghost Rays

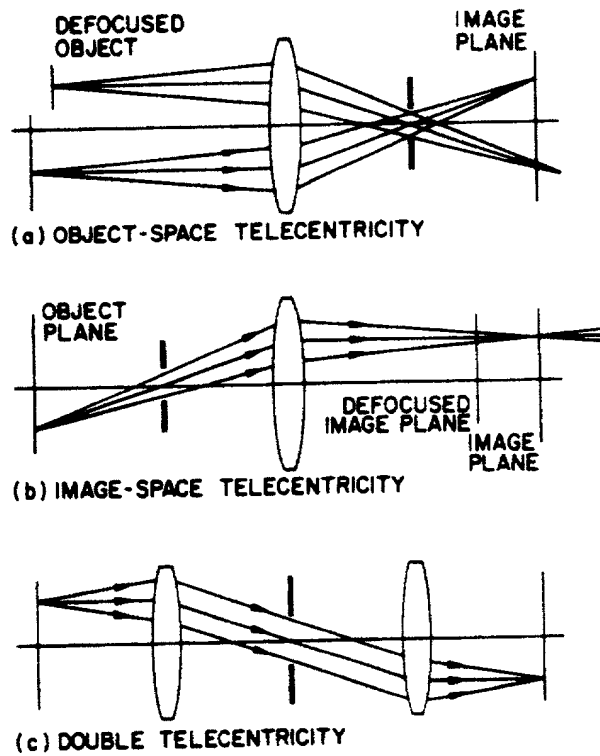
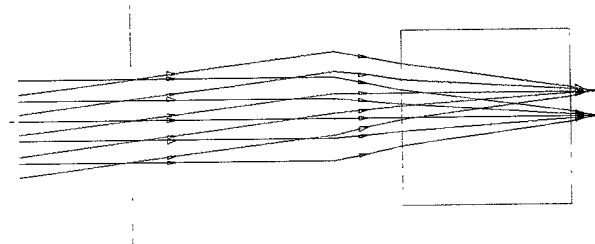


Exhibit R Telecentric Optical Systems

IDEAL TELECENTRIC SYSTEM

11.6265, 26.2566



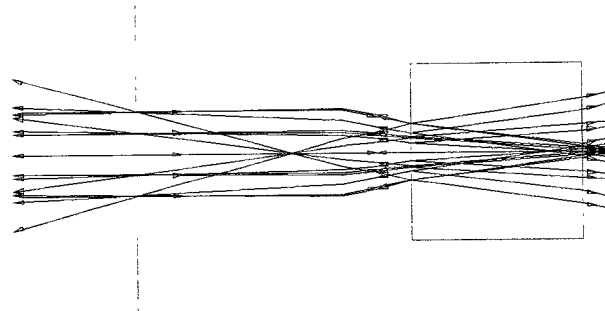
Y
Z
-11.6265, -5.42142 mm

ASAP

Exhibit S On and Off-axis Point Sources Imaged Through an Ideal Telecentric Lens System with the Stop at the front focal point, A glass block, and a Filter

IDEAL TELECENTRIC SYSTEM ILLUSTRATING GHOST IMAGING

11.6265, 26.2566



Y
Z
-11.6265, -5.42142 mm

ASAP

Exhibit T Ghost Image for an On-axis Point Source Through a Telecentric Optical System that is Telecentric in Image Space

IDEAL TELECENTRIC SYSTEM ILLUSTRATING GHOST IMAGING

11.6265, 26.2566

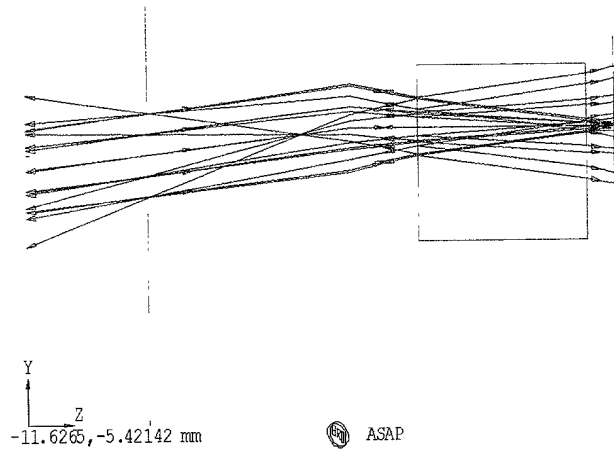
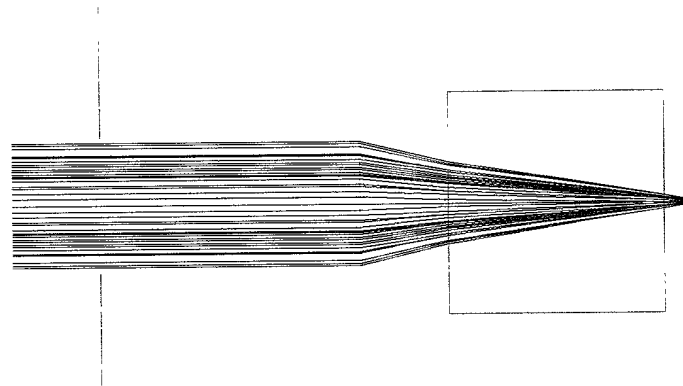


Exhibit U Ghost Image for an Off-axis Point Source Through a Telecentric Optical System that is Telecentric in Image Space

RAY TRACE FOR PATH 1 | 0 DEGREE FIELD ANGLE

9.16908,22.7588

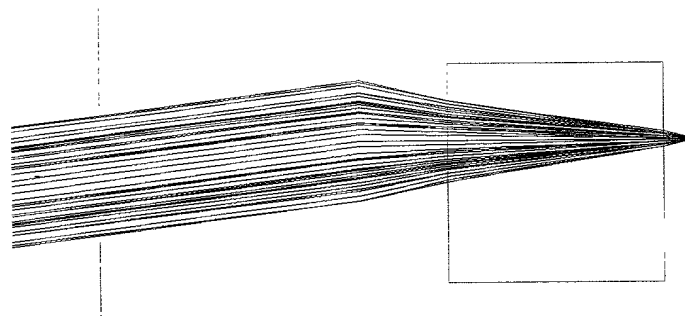


Y
Z
-9.16908,-2.22361 mm

ASAP

RAY TRACE FOR PATH 1 | 7 DEGREE FIELD ANGLE

9.16908,22.7588



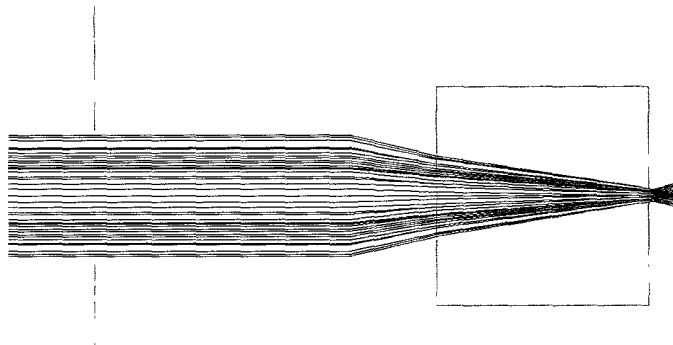
Y
Z
-9.16908,-2.22361 mm

ASAP

Exhibit V On and Off-axis Signal Paths

RAY TRACE FOR PATH 3 | 0 DEGREE FIELD ANGLE

9.16908,22.7588

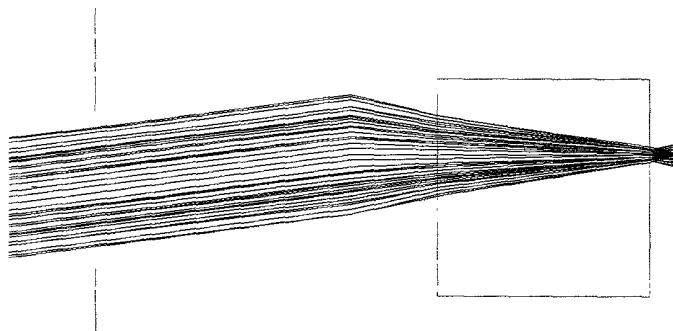


Y
Z
-9.16908,-2.22361 mm

ASAP

RAY TRACE FOR PATH 3 | 7 DEGREE FIELD ANGLE

9.16908,22.7588



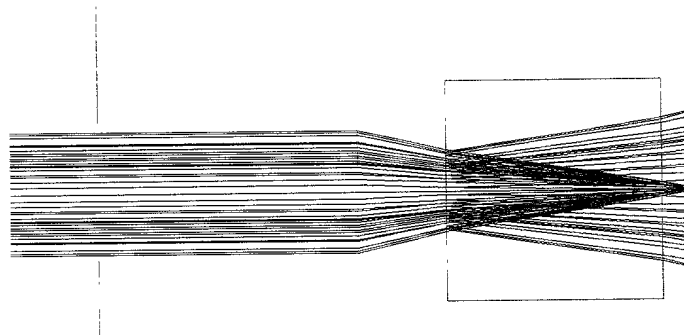
Y
Z
-9.16908,-2.22361 mm

ASAP

Exhibit W. On and Off-axis Most Energetic Ghost Paths

RAY TRACE FOR PATH 4 | 0 DEGREE FIELD ANGLE

9.16908,22.7588

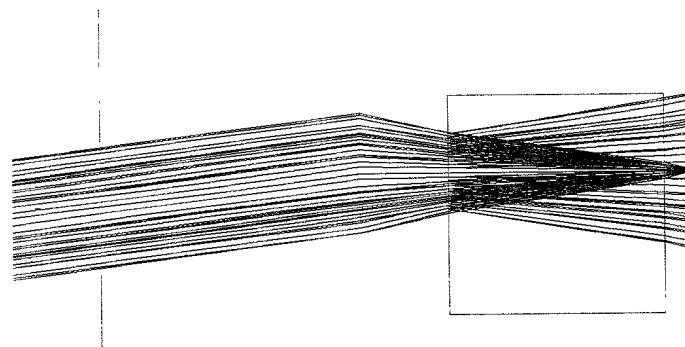


Y
Z
-9.16908,-2.22361 mm

ASAP

RAY TRACE FOR PATH 4 | 7 DEGREE FIELD ANGLE

9.16908,22.7588



Y
Z
-9.16908,-2.22361 mm

ASAP

Exhibit X On and Off-axis Second Most Energetic Ghost Paths